

## Synthesis of carboxylate phosphobetaines from 3-(diphenylphosphino)propanoic acid and unsaturated monocarboxylic acids

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### Abstract

© 2015 Pleiades Publishing, Ltd. Stable dicarboxylate phosphobetaines were synthesized by the phosphorylation of a series of unsaturated monocarboxylic acids (acrylic, crotonic, methacrylic, and cinnamic) with 3-(diphenylphosphino)-propanoic acid. The structure of the products was assessed by chemical, physical, and physicochemical methods. Alkylation of 3-(diphenylphosphino)propanoic acid with methyl iodide was studied for the first time to show that the reaction proceeds smoothly and yields the corresponding quaternary phosphonium salt.

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### Keywords

carboxylate phosphobetaines, phosphonium salts, unsaturated monocarboxylic acids